National Science Foundation

FY2022 Budget Request to Congress

Broadening Participation In Science and Engineering

Now more than ever, the prosperity and security of the U.S. depends on excellence in research and innovation. A diverse and capable STEM workforce is vital to maintaining this standard of excellence and to ensuring America's competitiveness in a global research landscape. The U.S. National Science Foundation has long championed programs that encourage accessibility and inclusivity in STEM fields for historically underrepresented groups through investments ranging from capacity building, research centers, partnerships, and alliances to the use of co-funding or supplements to existing awards in the core research programs.

The FY2022 Budget Request to Congress signals a strong commitment to scaling up NSF's ongoing broadening participation programs and initiatives, calling for a $100 million increase in funding for programs that aim to increase the participation of individuals from historically underrepresented racial and ethnic groups in science and engineering.

As part of NSF's commitment to finding talent and providing opportunities that build strong STEM pathways, the following programs are funded in the FY 2022 Budget Request to Congress.

- **ADVANCE** ($20.50 million) seeks to increase the representation and advancement of women in academic science and engineering careers. This program encourages institutions of higher education and the broader STEM community to address aspects of STEM academic culture and institutional structure that may differentially affect women faculty and academic administrators.
- **Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)** ($46.50 million) is committed to enhancing the quality of undergraduate STEM education and research at HBCUs to broaden participation in the nation's STEM workforce. HBCU-UP provides awards to develop, implement, and study evidence-based innovative models and approaches for improving the preparation and success of HBCU undergraduate students so that they may pursue STEM graduate programs and/or careers.
- **Historically Black Colleges and Universities Excellence in Research (HBCU-EiR)** ($33.96 million) program supports projects that enable STEM and STEM education faculty to further develop research capacity at HBCUs and to conduct research.
- The **Hispanic-Serving Institutions Program (HSI)** ($56.50 million) seeks to enhance the quality of undergraduate STEM education at HSIs and to increase retention and graduation rates of undergraduate students pursuing degrees in STEM fields at HSIs. The HSI Program seeks to build capacity at HSIs that typically do not receive high levels of NSF grant funding.
- The **Louis Stokes Alliances for Minority Participation (LSAMP)** ($69.50 million) is an alliance-based program that works to increase the number of STEM baccalaureate and graduate degrees awarded to populations historically underrepresented in STEM disciplines.
- The **Tribal Colleges and Universities Program (TCUP)** ($21.0 million) provides awards to Tribal Colleges and Universities, Alaska Native-serving institutions, and Native Hawaiian-serving institutions to promote high quality STEM education, research, and outreach.
- **Established Program to Stimulate Competitive Research (EPSCoR)** ($239.64 million) seeks to advance excellence in science and engineering research and education, enhancing the competitiveness of EPSCoR jurisdictions in the disciplinary domains supported by NSF.
- **Build and Broaden** ($8.00 million) supports research collaborations between scholars at minority-serving institutions (MSIs) and scholars in other institutions or organizations. B2 is designed to support research projects that builds capacity and enhance research productivity in the SBE sciences at MSIs; provides researchers with new ways to diversify and sustain collaborations; fosters partnerships that strengthen career and research trajectories for faculty at MSIs; and contributes to stronger, more innovative science by diversifying research and widening the STEM pipeline.
- **CISE Minority-Serving Institutions Research Expansion (CISE-MSI) program** ($7.00 million) enhances the capacity at MSIs for computing research, increasing the number of research projects from MSIs funded by CISE and broadening the participation of MSIs in CISE programs.

NATIONAL SCIENCE FOUNDATION PROGRAMS TO BROADEN PARTICIPATION FY 2022 BUDGET REQUEST TO CONGRESS (Dollars in Millions)	Amount of Funding Captured	**FY 2020** Actual	**FY 2021** Estimate	**FY 2022** Request	Change over **FY 2021** Estimate	
					Amount	Percent
Focused Programs						
Advance	100%	18.00	18.00	20.50	2.50	13.9%
Alliances for Graduate Education & the Professoriate (AGEP)	100%	8.00	8.00	12.00	4.00	50.0%
AGEP Graduate Research Supplements (AGEP-GRS)	100%	3.17	6.64	6.64	-	-
Broadening Participation in Biology Fellowships	100%	5.00	3.50	5.00	1.50	42.9%
Broadening Participation in Engineering (BPE)	100%	4.72	7.50	9.00	1.50	20.0%
Career-Life Balance (CLB)[1]	100%	0.69	0.28	0.28	-	-
Centers of Research Excellence in Science & Technology (CREST)	100%	24.00	24.00	39.00	15.00	62.5%
CISE Education and Workforce	100%	11.00	12.75	12.75	-	-
CISE-MSI Research Expansion Program	100%	-	-	7.00	7.00	N/A
Coastlines and People (CoPe)	100%	4.41	18.00	28.00	10.00	55.6%
Disability and Rehabilitation Engineering (DARE)	100%	5.07	5.10	6.00	0.90	17.6%
Excellence Awards in Science & Engineering (EASE)[2]	100%	7.33	5.00	7.64	2.64	52.8%
Historically Black Colleges & Universities Undergraduate Program (HBCU-UP)	100%	35.00	36.50	46.50	10.00	27.4%
HBCU Excellence in Research (HBCU-EiR)	100%	18.05	20.50	33.96	13.46	65.7%
Improving Undergraduate STEM Education (IUSE): Hispanic Serving Institutions (HSI) program	100%	45.00	46.50	56.50	10.00	21.5%
Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (NSF INCLUDES)	100%	20.75	20.00	46.50	26.50	132.5%
Louis Stokes Alliances for Minority Participation (LSAMP)	100%	47.49	49.50	69.50	20.00	40.4%
Mathematical and Physical Sciences Ascending Postdoctoral Research Fellowships (MPS-Ascend)	100%	-	10.00	10.00	-	-
NSF Scholarships in STEM (S-STEM)[3]	100%	79.91	132.75	121.85	-10.90	-8.2%
Partnerships for Research & Education in Materials (PREM)	100%	6.38	9.00	9.00	-	-
Partnerships in Astronomy & Astrophysics Res. Ed. (PAARE)	100%	-	-	0.50	0.50	N/A
SBE Build and Broaden	100%	1.37	8.00	8.00	-	-
SBE Postdoctoral Research Fellowships-Broadening Participation (SPRF-BP)	100%	1.49	3.00	3.00	-	-
Science of Broadening Participation	100%	1.73	1.50	1.50	-	-
Tribal Colleges & Universities Program (TCUP)	100%	15.00	16.50	21.00	4.50	27.3%
Subtotal, Focused Programs		**$363.56**	**$462.52**	**$581.62**	**$119.10**	**25.8%**
Geographic Diversity Programs						
EPSCoR	100%	190.32	200.00	239.64	39.64	19.8%
Subtotal, Geographic Diversity Programs		**$190.32**	**$200.00**	**$239.64**	**$39.64**	**19.8%**
Emphasis Programs						
Advancing Informal STEM Learning (AISL)	58%	36.24	36.25	40.60	4.35	12.0%
Computer Science for All (CSforAll)	62%	18.89	15.19	15.19	-	-
CyberTraining	51%	2.53	3.06	3.06	-	-
Discovery Research PreK-12 (DRK-12)	56%	53.20	53.20	53.20	-	-
EHR Core Research	62%	41.43	47.52	60.15	12.63	26.6%
Graduate Research Fellowship Program (GRFP)	67%	189.48	189.49	212.13	22.64	11.9%
Improving Undergraduate STEM Education (IUSE)	64%	70.11	71.36	69.50	-1.86	-2.6%
Innovative Technology Experiences for Students and Teachers (ITEST)[3]	74%	25.80	32.75	30.06	-2.69	-8.2%
International Research Experiences for Students (IRES)	54%	6.36	6.62	6.48	-0.13	-2.0%
Research Experiences for Teachers (RET) Sites in Engineering and Computer Science	72%	5.90	4.54	5.18	0.65	14.3%
Research Experiences for Undergraduates (REU) - Sites and Supplements	61%	60.17	50.19	51.57	1.38	2.7%
Robert Noyce Teacher Scholarship Program (NOYCE)	59%	41.16	39.53	39.53	-	-
Subtotal, Emphasis Programs		**$551.27**	**$549.69**	**$586.66**	**$36.97**	**6.7%**
Total, Broadening Participation Programs		$1,105.15	$1,212.21	$1,407.92	$195.71	16.1%

[1] NSF continues to support the CLB Initiative through supplemental funding to active NSF awards. In general, CLB funding will be reported annually as part of NSF's actual obligations.
[2] The Excellence Awards in Science and Engineering (EASE) program is comprised of both Presidential Awards for Excellence in Science, Math and Engineering Mentoring (PAESMEM) and Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST).
[3] NSF Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM) and Innovative Technology Experiences for Students and Teachers (ITEST) are H1B Visa funded programs.